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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/938,459

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Charles P. Norman

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EXAMINER

KIM, KEVIN

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/938,459	Applicant(s) NORMAN, CHARLES P.	
	Examiner Kevin Y. Kim	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,9-12,14,15,17,19,20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7,9-11 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-3,12,14,15,17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on May 8, 2008 with respect to the rejection of claims under 35 USC 112 first paragraph have been fully considered but they are not persuasive. Claims 1-3,5-12,14,15,17 and 19-22 had been rejected as not enabling because a critical or essential feature was not included in the claims. The reason was that because the separately received frequency reference signal was not described as optional, the signal must be a critical feature. Thus without including such a feature the claims were found not enabling in accordance with 35 USC 112 first paragraph. However, it appears that applicant wrongly understood that the examiner stated that the mixing is merely preferred. The examiner stated that "[t]he specification *fails* to describe the mixing of the separately received frequency signal is merely optional." Emphasis added. In other words, the specification was understood as teaching the mixing was essential. The rejection of claims 5-7,9-11,22 under 35 USC 112 first paragraph is withdrawn in light of the amendment adding a critical feature.

With respect to claims 12, 14, 15, 17 and 19, applicant reserved an amendment or cancellation of the claims because the copending application 09/938,387 was not allowed at the writing of the response. Since claim 4 of the copending application have been allowed without amended (thus as was) on June 2, 2008, a proper amendment or cancellation is needed to overcome the rejection.

The provisional rejection of claims 1-3,5-7, 9 and 22 on the ground of nonstatutory obviousness-type double patenting is withdrawn in light of the concurrently filed terminal disclaimer

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claims 1-3,12,14,15,17,19,20 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A claimed invention comprising a feature critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The specification discloses that a separately received frequency reference signal (114), illustrated in Fig.1, is mixed with a carrier-removed GPS signal and the resultant signal is provided to a comb filter. The specification fails to describe the mixing of the separately received frequency reference signal is merely preferred. It also fails to disclose an embodiment where the separately received frequency reference signal is not used at all to achieve the objective of the present invention.

For the purpose of compact prosecution, the mixing of the separately received frequency reference signal with the carrier-removed GPS signal is considered as implicitly recited.

Double Patenting

4. Claims 12,14,15,17,19 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 4 of copending Application No. 09/938,387. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

i) a receiver not recited in claim 4 of '387 application, which includes the subject matter of claim 1, is inherent in a GPS receiver.

ii) a first mixer is identically recited

iii) a comb filter is identically recited.

iv) a frequency shifter including at least one frequency generator and a plurality of second mixers is identical to a frequency receiver that comprises mixing the filter lines with at least one output of a frequency generator. It is noted that mixing the filter lines with at least one output of a frequency generator requires a plurality of mixers.

The only seemingly substantial difference is that in the '387 application a second mixer is further included that mixes the carrier-removed GPS signal and a separately received frequency reference signal. However, as discussed above in connection with the rejection of the claims under 35 USC 112 first paragraph, such a feature is essential and is considered implicitly recited in the claim of the present application. Thus, it is interpreted that the first resultant signal is mixed with the carrier-removed frequency reference signal before its mixing resultant is provided to the comb filter.

Claims 14 is equivalent to claim 2 of '387 application since both claims further include "a second frequency shifter" which is the same as a bandpass filter according to the specification.

Claim 15 is equivalent to claim 1 of '387 application since claim 3 now explicitly includes a third mixer that mixes a separately received frequency reference signal with the carrier-removed GPS signal.

Claim 17 is equivalent to claim 2 of '387 application since both claims further include "a second frequency shifter" which is the same as the bandpass filter according to the specification.

Claim 19 is equivalent to claim 7 of '387 application because both claims send a second compressed GPS to the base station.

Allowable Subject Matter

5. Claims 5-7,9-11,22 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin Y Kim/
Primary Examiner, Art Unit 2611